Education Management Capacity Assessment

A Pilot in Kenya

Many countries launch into education decentralization and the delegation of duties and powers without a proper understanding of the readiness of sub-national units to assume their newfound responsibilities; and, more importantly, without any basis for planning the capacity-building activities needed to absorb their new duties and powers. To better understand the mismatch between the current and required skills of local education authorities, the Kenya Ministry of Education (MoE) requested a systematic district-by-district assessment of capacities, skills and performance.

The Kenya MoE is using the results of this survey in designing a professional development program for local education authorities to build up those skills that were found lacking, demonstrating Kenya's commitment to take this issue seriously. Having such highly specific and systematic data on skills needs now means that donors and the government can plan, budget, and allocate capacity building on a more systematic or scientific basis than in the past.

The Kenya Education Management Capacity Assessment (KEMACA) survey was carried out at the request of the Government of Kenya, with funding from USAID. It was designed in late 2006, carried out in early 2007 by RTI International and East Africa Development Consultants (EADEC). The main objective of the survey was to ascertain capacity weaknesses in the Kenyan education system, which might impede the proper execution of the Kenya Education Sector Support Programme (KESSP). To our knowledge, this is the first truly detailed survey of this type, there are some interesting methodological and policy conclusions that have emerged that may be of interest not only in Kenya, but elsewhere; and which will show Kenya as a path-breaker in this respect.

Methodology

The survey was a "census" type analysis of all levels of the educational system down to and including the district level. All units were sampled down to the district level; but below that, the survey was based on random samples of zones, divisions and schools. Given such a sampling approach, district-level information is valid; however it is not possible to draw statistical inference about units below the district level. Furthermore, the survey allows one to generalize about all districts, because all districts were in the survey. Statistical inference about schools is possible, but only about schools in general, not schools in a particular district. Similarly, there are detailed conclusions about which areas of skills are most sorely lacking. These two sorts of information can be compared to determine which units of the Ministry are weakest in which areas.

At each level two sorts of questions were asked: areas of strength or weaknesses with regard to capacity (in particular skills), and rating of own performance on "objective" performance indicators. This resulted in quite a few questions, with the number varying depending on the level. But, for example, at the district level, questions on a total of some 145 skills perceptions and/or performance indicators were asked. These included areas of general skills, curricular planning and management skills, teacher support skills, planning

and management skills, and EMIS and information skills—in short, all the key capacities needed to run an education system.

Overall, seven instruments were used in this survey: 1) teacher, 2) principal, 3) zonal level officers, 4) divisional level officers, 5) district level officers, 6) provincial level officers, and 7) national level officers. Structured as such, the survey followed the current decentralized education system set-up and all of the instruments underwent a series of revisions in consultations with the key stakeholders in the country. In rating skills, respondents were asked to self-assess on a 1 to 4 scale in most cases (from worst, 1, to best, 4). In other cases the rating was yes-no, and in other cases (mostly relating to performance indicators) the unit may have been time or some other "physical" or "objective" unit.

The survey implementation was approached as follows:

1. **Analysis of existing policy documents**: Great care was taken to analyze all the key policy documents to ascertain what skills requirements were implied by the policies. Thus, the skills lists that formed the basis for development of survey instruments, are partly derived from international best practice, but mostly derived from the skills that are explicitly or implicitly needed by all the key functions assigned various levels of the education system as per Kenya's own reform program, the KESSP.

2. **Developing draft instruments**: In addition to the analysis of existing policy documents, the relevant key stakeholders in the Kenya education sector were consulted and their inputs were incorporated into the first draft of instruments. Following the drafting of the instrument, a week-long seminar gathered participants from a cross-section of stakeholders (that included representatives of MoE, Investment Managers for KESSP, Provincial Directors of Education, District Education Officers, Members of the District Education Boards, Zonal Officers, Heads of Schools (Primary and Secondary), Members of School Management Committees and Board of Governors). The participants analyzed all instruments and provided feedback for improvements of all seven instruments.

3. **Pilot trial of the instrument**: Draft instruments were piloted in order to ensure the clarity of questions, confirm the ease of administration, and gain insights into potential difficulties that might arise during the data collection. The pilot took place in three districts that were carefully selected to represent all levels of development in Kenya, from low development potential (areas that are arid and semi-arid) to high development potential areas.[1] Relevant officers from the national level were engaged to assist with the pilot as well as to provide advice when needed. The data entry program was also tested at this point.

4. **Instrument finalization**: This was a critical step in survey design and implementation since this was the last opportunity to ensure the validity and reliability of the instruments. The pilot provided critical input in this regard, but our survey experience shows that additional consultations with the relevant stakeholders is a must, both to take the instruments to a higher level of quality, ensure responsiveness to scientific rigor, and ensure ownership and support by the educational establishment. At this stage, experts were requested to provide the final inputs and push the instruments as far as possible in terms of quality.

5. **Selection and training of interviewers**: Interviewers were selected based on their qualifications, previous experience in data collection, and face-to-face interviews. The training of interviewers was organized in two phases. As a first step, a number of interviewers were selected and trained for the pilot. This

Survey Methodology:
- Documentary and policy priority review and analysis
- Draft instrument design
- Pilot trial of the instrument
- Instrument finalization
- Selection & training of enumerators
- Data collection and quality control
- Data entry and review
- Data analysis and report writing
- Dissemination of results

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[1] This is standard Kenyan government terminology for classifying areas according to poverty levels.

provided an opportunity for the specialists to get a better understanding of the training needs for survey personnel before deployment. It also helped the survey specialists determine potential variants and obstacles with respect to research design, implementation schedule and the logistics. After the pilot, the specialists improved the training manuals and organized the training for all interviewers.

6. **Data collection and quality control:** Data collection teams were comprised of three interviewers and one supervisor. Interviewers were provided with scopes of work and expected results for each day. After each interview, the interviewer was responsible for editing the input while the interviewee was still present in order to ask any clarification questions. At the end of each day, the supervisor collated the instruments administered that day. The role of the supervisor was critical for timely and quality delivery of interviewers. First, the supervisor ensured that interviews were organized on time and conducted with the identified interviewees. Second, the supervisor reviewed and edited the work of the interviewers and if there were any ambiguities the interviewers were asked for clarifications. Third, the supervisor provided needed support to the team by consulting RTI's subcontractor's research specialists.

7. **Data entry and review:** In order to minimize the data-entry errors, the process of data-entry application development was carefully supervised. The supervision of data-entry application development is one way of ensuring accurate data entry. The other is the selection of data-entry clerks. Data-entry clerks were selected based on their qualifications, previous experience, and face-to-face interviews. Additionally, a supervisor was appointed to observe their work. The accuracy of data entry was checked on a random basis by senior survey specialists and it was found that the data-entry accuracy was above the 99% level.

8. **Qualitative data:** To account for possible shortcomings of quantitative data collection, a parallel yet fully linked strategy for the collection of qualitative data was designed. The interview instruments were designed with the experts in Kenya and the interviews were conducted by trained senior team members. The interviews covered the senior officers of the four Directorates- Policy and Planning; Basic Education; Higher Education; and Quality Assurance and Standards. It also covered the Ministry's support departments: Procurement, Finance, and Accounts. Additionally, an international expert was appointed to conduct a number of qualitative research interviews with education officers at the national, district, and school levels. Both institutional capacities and skills of education officers were assessed while focusing on the following:

    a. assessing the degree of possible mismatch between the KESSP's implementation requirements and organizational and institutional capacity of the Ministry of Education and its related agencies;

    b. assessing both organizational and individual capacity and skills at the district/zonal and school levels;

    c. reporting both findings and recommendations on how the identified gaps and deficiencies can be mitigated and overcome by future capacity-building efforts or, importantly, by organizational improvements; and

    d. assessing the issue of quantitative imbalance (numbers of staff at central level vs. sub-national levels).

9. **Data analysis and report writing**: In addition to fairly expensive statistical packages, STATA9 and SPSS, data analysis was also carried out using Excel. This was particularly the case for those analyses that needed to be done while engaging stakeholders who can provide important qualitative inputs and, equally

important, provide them with an opportunity to analyze data themselves. Multiple versions of the final report were shared with relevant MoE stakeholders before being finalized.

Findings

Since the survey asked about skills needs in some 145 areas, the real interest is in the details, yet the details are difficult to summarize. While there are many things that are going well in Kenya, and areas where staff self-assess well, it is impossible to delve into these and keep this article to a reasonable length. Readers are invited to request a full report for further information (contact information provided below). Thus, here we focus only on the problem areas.

School Level: Of all actors in the sector, in general teachers have the highest opinion of their own skills; and, oddly enough, in the poorer areas teachers' self-evaluations were higher. This creates an immediate and obvious problem for capacity-development, in that generally it is hard to do demand-led capacity building in poorer areas if those who would receive the capacity already rate themselves better than others in the system. This is a challenge to the typical donor programs that normally prefer to build capacity in the poorer areas. The survey raises the possibility that this might not always lead to the most demand and sustainability. One solution might be to have clearer standards of performance (or service charters) at the teaching level. That way objective data on how performance compares to standards can be disseminated. Otherwise, it will be relatively hard to create a "demand side" for specific skills-building, as opposed to generic in-service training.

A few areas of self-acknowledged lack of capacity did stand out for all teachers: a) skills in dealing with special-needs learners, b) skills in assessing children and communicating to parents, c) skills in managing large classes and multi-grade situations. An important finding is that, on a pedagogical problem that they themselves reported, only 60% of teachers say they have ever been helped by anyone outside the school. This would indicate that teacher support has not been sufficiently problem-oriented and demand-driven. Similarly, 43% of teachers say that they do not go to pedagogical advisors from the Ministry when they have pedagogical problems; instead they confer casually with each other. One can use this information on both how to organize support as well as to assess to the quality of the support given schools.

When headteachers (school principals) were queried, areas of skill or capacity that were most sorely lacking showed that some 27% of schools did not have an action plan at all. But of those who claimed they did, only 49% were able to produce it. School action plans were frequently not focused on pedagogical issues such as materials acquisition, peer teaching, assessment, etc., but on more generic issues and infrastructure. So there is clearly a problem with school planning skills. In general, when schools claim to have key administrative records (and in the majority of cases they do), approximately 50% or so of headteachers were unable to show most of the key administrative records schools are supposed to keep. This does not necessarily mean they did not have them, perhaps it meant that they were not proud of their condition or felt their records were not sufficiently up-to-date to share.

The ability of the School Management Committee/Board Of Governors to deal with pedagogical or staffing issues was problematic. Headteachers, when asked to rate problems with parental participation in school governance and support, gave these skills

areas the worst possible rating around 40% of the time. With respect to quality of training received, financial planning also stood out as problematic. 28% of headteachers gave this training the worst possible rating. Further, headteachers report serious problems dealing with, and filling out, data sheets from the Teacher Service Commission and Kenya National Examination Council. About half of headteachers gave the organization of the data forms from these two institutions the worst possible rating. Data forms from the MoE headquarters were reported as much less difficult to deal with. Finally, the lack of computers and also computer skills, depending on the specific type of computer skills, also received the worst possible rating from in the range of 70% to 85% of the headteachers.

District Level: At the district level, the clarity as to procedures for replacing retired teachers received worst possible rating from 30% of district officials interviewed. The whole area of "project management," such as how to specify work for others, how to draft a budget, and so on, is problematic, being rated as worst by some 20% to 30% (depending on sub-skill) of district officials. Skills in computer use are drastically poor, 44% of officials giving this area the worst rating. Similarly, skills in any form of quantitative analyses were rated as extremely poor. Interestingly, it is particularly the aspect of computer applications to the skill, rather than the underlying conceptual skill, in which people self-rated worst. For example, only 19% of district level personnel rated their skills in data interpretation as a "worst" area, but a full 70% rated their ability to use computers for this task as a "worst" area. Further, some 25% to 50% of district officials gave "worst possible" ratings to the issue of clarity of regulation in a whole array of areas such as tendering, contract performance, tender evaluation, etc. Finally, too many (42%) of district officials report not using any performance appraisal system.

National level: At the national level there were several areas of concern. First, there seems to be a lack of skill in project management, such as (similar to district level) knowing how to write scopes of work for others. Second, respondents reported a general lack of planning, budgeting, and similar skills. These were given a "worst" self-rating by around 30% to 40% of those interviewed. Finally, skills in all areas of data handling, all the way from database management to marketing of data products, were given the "worst" rating by some 50% of respondents (though data vary from sub-area to sub-area).

General conclusions from the quantitative analysis

While the above presented findings were fairly specific, the survey delivered some general findings, and for some of them we think are of utility not just to Kenya but possibly to other countries.

Staffing intensity is not a good predictor of performance: An interesting finding is that, in general, performance on "objective" indicators, such as frequency of school inspections, time it takes to answer queries from schools, time it takes to effect a transfer of teachers, and so on, was not correlated to staffing intensity or staff shortages. This does not, by any means, imply that the system is over-staffed. On the contrary, we saw considerable evidence of under-staffing. But it does imply that the system does not know how to effectively and predictably get performance out of staff. Again, we suggest that this is related to the lack of reasonable, but reasonably demanding, benchmarks of performance or service charters.

Performance on key indicators varies: quite good on some, not so good on others. The report produces information on a few of these "objective" performance indicators, such as

'how long does it take to get a teacher on to the payroll.' Some of the current average levels did raise concern. An example of those would be the report that it might take as long as 9 months to effect a teacher transfer, or that 60% of teachers report never having had pedagogical assistance on a problem that they reported. Some other indicators look rather good, for a developing country, such as the number of visits schools get from outside quality assurance officers or other suppliers of input. One could argue that more visits should take place, but the fact that schools are visited 1.6 times per term, on average, by zonal Quality Assurance and Standards Officers (QASOs), and 1.9 times per year by divisional QASOs, is heartening. In many countries whole swathes of schools are never visited, and certainly few countries can boast as many inspection or support visits as in Kenya. However, the productivity of such visits, and the knowledge of the visitors, as rated by the schools themselves, still leaves a lot to be desired, as schools rated the quality of these visits at a mediocre 2.5 (in a scale of 1 to 4, where 1 is worst and 4 is best).

Many of the questions were "triangulated" between different types of respondents or, rather, whenever possible, the level that does not have an incentive to misrepresent reality was asked the same question. For example, not only the district staff, but also school staff, were asked how often quality assurance or similar visits take place. In general the coincidence was rather good. As noted, for some of these indicators things look rather good, but for some others performance leaves a lot to be desired.

A very heartening finding was that total staffing, at least at district levels, seems rationally distributed, though the relationships between *types* of staff do not seem as rational. Kenya seems to do a rather good job, compared to other countries, in distributing staff to districts. First, the correlation between staffing levels with enrollment is really rather high, at 0.72, certainly high for a developing country. Second, whether by design or by accident (probably a little of both) staffing is pro-poor. The poorest 10% of learners have access to 15% of district-level staff. One aspect of staffing that does not appear too rational is that of ratios between types of staff. For example, there is a very low correlation between professional and support staff across districts. The correlation between numbers of all professional staff and the numbers of clerks, to take one just case, is only 0.19, and the correlation between enrollment and number of clerks was only 0.28. The correlation between number of teachers and enrollment is not available, as the data on staffing refers only to district office staff. As government allocates support staff, it would be advisable to look into this matter to try to issue norms that force districts to allocate staff more rationally.

General conclusions from qualitative analysis

The quantitative analysis could typically focus only on certain types of issues. More structural issues, having to do with overall managerial constraints to improved performance, as opposed to numbers and skills constraints, are difficult to analyze quantitatively. For that reason, the survey was complemented by qualitative analysis. The conclusions of the Education Capacity Assessment Survey in Kenya can be summarized as follows.

Strategic planning: In terms of strategic planning, mission and vision statements tend to be rather general and not sufficiently focused on outputs and outcomes. The ability to strategize in order to turn the mission and vision into operational plans is not yet optimal. Plans often read more like lists, with little apparent sense of prioritization. Top leadership is clear and able to prioritize, but mid-level management does not seem to have the skills needed, or the tradition, to turn top-level visions into operational plans. Much capacity

development is required at this level, including practice in blunt debate and criticism. As a result, operational plans are often lacking in quality or missing altogether, and top-level leadership is pressed for time. The inability of top-level leadership to rely on mid-level management to turn vision into operations means that the leadership has to delve into operational matters, including a constant re-translation of vision and mission, which takes time away from strategic thinking.

Division of labor: Fragmentation of the sector is higher than in other countries. Key functions that are normally done by the Ministry itself in other countries, such as training of staff, curricular development, teacher training, and staff development, are in Kenya under the control of relatively autonomous institutions. This is not without its advantages. But it is important to note, in any case, that might lead to some disunity and lack of control.

Staffing: There are absolute shortages of staff, as is well known. In the quantitative survey, lack of staff was one of the most frequent concerns as well. However, it should be noted that no correlation could be found between staff intensity at district level and performance of some key services. This is not to say there is no under-staffing, but simply to say that staff is not currently optimally utilized or their skills are insufficient. Skills, therefore, are a main issue. The qualitative interviews singled out financial skills as a key constraint, consistent with the quantitative findings. The lack of proper job descriptions, and allocation and evaluation of staff against job descriptions or performance standards also came up as a significant hindrance.

Contact Information

For more information on the tools or processes used, or for a copy of the Kenya Education Capacity Assessment Report, please contact Sandra Bertoli, USAID EdData CTO, at sbertoli@usaid.gov or Luis Crouch, Research Vice President at RTI International at lcrouch@rti.org.